

參考資料

SC-40X / SW-41X USER MANUAL



MODEL : SC-40X / SW-41X AM0
 PCB Ver. : V1.0
 HW RD : Jack(鄭亦翔)
 WRITER : Usher(郭宗翰)

RELEASE	APPROVED	DESIGNER
2013/10/22		

History

Rev.	Released Date	Updated Information	Written by
1.0	10/3	User Manual Create	Usher
1.1	10/22	Content	Usher / Charon

 尚茂智能科技股份有限公司 SUNMORE SMART TECHNOLOGY INC.	SC-40X / SW-41X USER MANUAL	USER MANUAL
		SC-40X / SW-41X
		2013/10/22

CONTENTS

Specification	3
PCB Top View & Mechanical Drawing	5
IO Port.....	7
Q&A	9

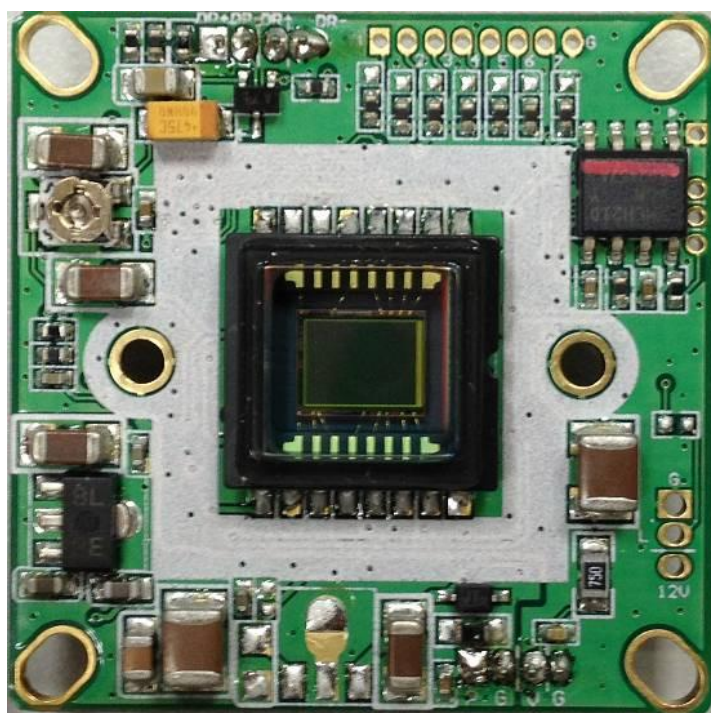
www.sunmoretek.com

Specification

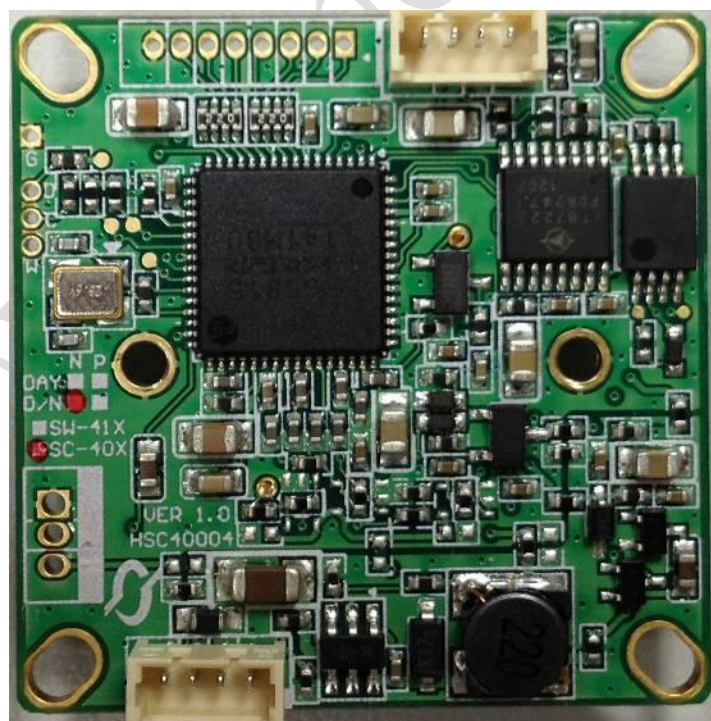
Model	SC-400AM0		SC-401AM0
Sensor	NTSC		PAL
	1/3 inch CCD Image Sensor		
Power / Video Connector Type	4 pin / 1.25 mm		3 pin / 1.5 mm
Effective Picture Elements	768(H) X 494(V)		752(H) X 582(V)
Lens	Selectable / Default : 3.6mm, Compatibility: 6mm (F2.0) fixed lens / CS MONUT / VARI FOCAL 3.5~8 mm		
D/N Mode (Color/Mono switch)	Auto		
Auto Gain	Yes		
Gamma	0.45		
	MIN	TYP	MAX
PCB size	31.85 * 31.85 mm	32 * 32 mm	32.15 * 32.15 mm
Horizontal Resolution		520 TV lines	
Minimum Illumination (F2.0 Lens)		0.1 Lux	
Electronic Shutter	1/60 (1/50)	Auto	1/100,000
ATW	3200K	Auto	10500K
S/N Ratio	48dB		
Video Output		Composite 1 Vp-p 75 Ohms	
Power	DC 10.8V	DC 12V	DC 13.2V
Power Consumption	54mA(@13.2V)	58mA	62mA(@10.8V)
Operating Temperature	-10°C		50°C
Storage Temperature	-20°C		60°C
Operating Humidity			80% RH
Storage Humidity			90% RH

Model	SW-410AM0		SW-411AM0	
Sensor	NTSC		PAL	
	1/3 inch CCD Image Sensor			
Power / Video Connector Type	4 pin / 1.25 mm		3 pin / 1.5 mm	
Effective Picture Elements	768(H) X 494(V)		752(H) X 582(V)	
Lens	Selectable / Default : 3.6mm, Compatibility: 6mm (F2.0) fixed lens / CS MONUT / VARI FOCAL 3.5~8 mm			
D/N Mode (Color/Mono switch)	Auto			
Auto Gain	Yes			
Gamma	0.45			
	MIN	TYP	MAX	
PCB size	31.85 * 31.85 mm	32 * 32 mm	32.15 * 32.15 mm	
Horizontal Resolution		520 TV lines		
Minimum Illumination (F2.0 Lens)		0.1 Lux		
Electronic Shutter	1/60 (1/50)	Auto	1/100,000	
ATW	3200K	Auto	10500K	
S/N Ratio	48dB			
Video Output		Composite 1 Vp-p 75 Ohms		
Power	DC 10.8V	DC 12V	DC 13.2V	
Power Consumption	54mA(@13.2V)	58mA	62mA(@10.8V)	
Operating Temperature	-10℃		50℃	
Storage Temperature	-20℃		60℃	
Operating Humidity			80% RH	
Storage Humidity			90% RH	

PCB Top View & Mechanical Drawing



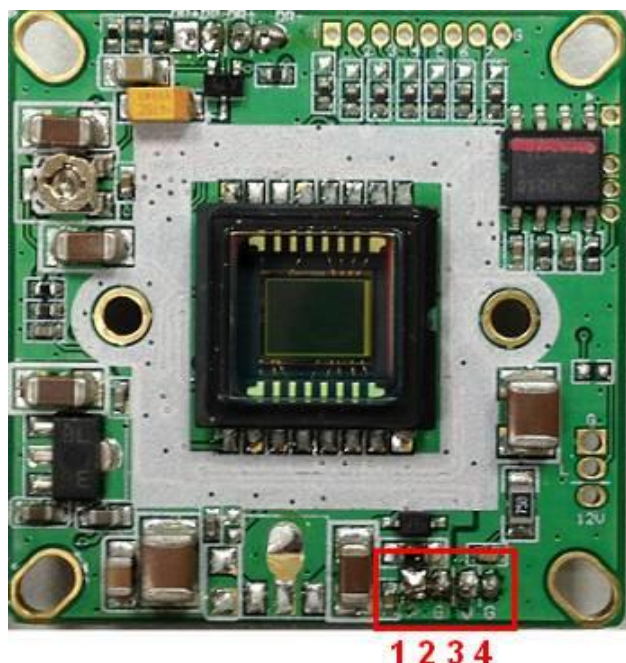
TOP



Bottom

IO Port

- **Power & Video Out Connector 4P (NTSC: p1.25mm)**
- **Power & Video Out Connector 3P (PAL: p1.50mm)**



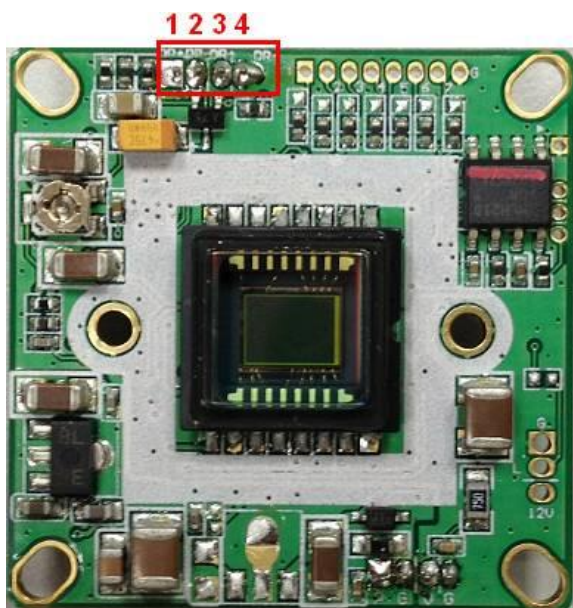
SC-400AM0_SW-410AM0
 (NTSC 4P, pitch 1.25mm, DIP)

No	Pin Name	I/O	Description
1	DC_12V	I	DC 12V Input
2	PGND	G	Ground
3	VIDEO	O	Video Output
4	VGND	G	Ground

SC-401AM0_SW-411AM0
 (PAL 3P, pitch 1.5mm, DIP)

No	Pin Name	I/O	Description
1	DC_12V	I	DC 12V Input
2	PGND	G	Ground
3	VIDEO	O	Video Output

■ **Auto IRIS Connector 4P (Pitch : 1.25mm)**



4P, pitch 1.25mm, DIP

No	Pin Name	I/O	Description
1	DMP+	O	DD IRIS DMP+
2	DMP-	I	DD IRIS DMP-
3	DRV+	O	DD IRIS DRV+
4	DRV-	G	DD IRIS DRV- (GND)

Note: Above functions are only workable as connected to Auto-iris Lens

Q&A

Q1. How to effectively make Day & Night module into Day Module ?

Use Lens with IR Coating to block the Infrared light.

Q2. How to enlarge 32x32 size PCB to 38x38 size ?

Use 32 to 38 conversion frame.



Q3. Issue on blurred image or poor image resolution

Check if the surface of the sensor or the top & bottom side of the lens are contaminated, use micro-denier to clean all the contaminants if necessary. Also it could be image out of focus, please adjust the focus of the lens.

Q4. Can not achieve the best focus

Change the height of the lens holder if focus can not be met.

Adjust the lens to make it closer to the sensor, if you still see the blurred image, please change a lower height lens holder.

Adjust the lens to make it far away from the sensor, if you still see the blurred image, please change a higher height lens holder.

Q5. Why the color I see on the TV seem not to be correct?

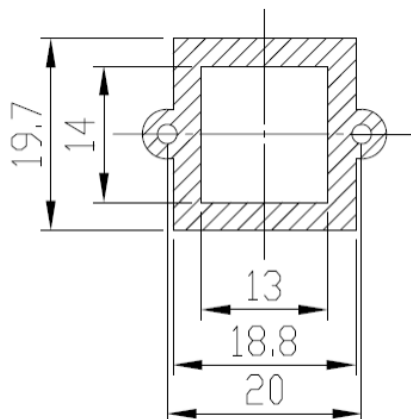
For some circumstances (light source include IR), the color of the object might be influenced by the IR.

Q6. How do I deal with color rolling?

Please select modules with auto iris function and use direct drive type auto iris lens.

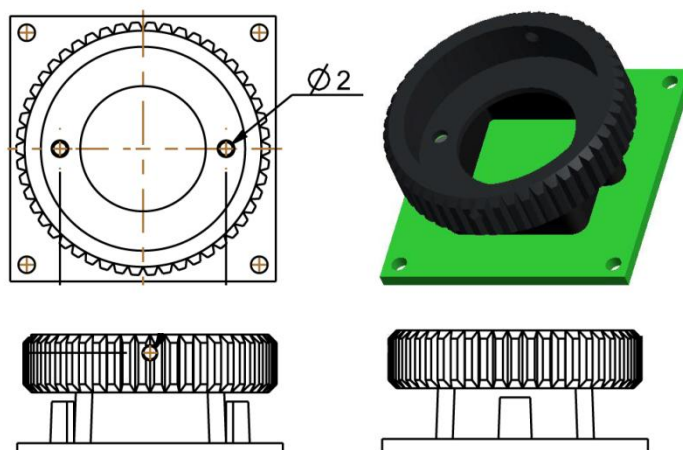
Q7. How do I select Lens Holder?

The lens holder screw hole spacing is 20mm. Please refer to the figure below for the holder size (inner & outer) (length 19.7~14mm: width 18.8~13mm)



Q8. If I want to use CS mount lens, what should I do?

Use CS mount lens holder, please refer to the follow figure.



Q9. The connection method for the power/video port?

Please refer to the "power/video port" section.

Q10. How to select IR LED?

Please use the IRLED with peak wavelength at around 850nm.

Q11. The effect of IRLED is not obvious?

- (1) You must use D/N type module (with D&N OLPF attached on the sensor)
- (2) Your IRLED peak wavelength must be 850nm

 尚茂智能科技股份有限公司 SUNMORE SMART TECHNOLOGY INC.	SC-40X / SW-41X USER MANUAL	USER MANUAL
		SC-40X / SW-41X
		2013/10/22

Q12. How to increase the visible distance when using IRLED at night?

- (1) Increase the number of IRLED
- (2) Use lens with larger iris (smaller F-number)

Q13. How to externally control the video D/N mode from color to mono when IRLED is switched ON?

Please select the module which has D/N mode input port, for detail, please contact module distributors.

Q14. Suggestions on the PCB screws

We suggest you to use M2*4 Machine Screw or (phi)2*4 self-tapping screw.

www.sunmoretek.com